

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Appln. No.	: 10/806,256	Group Art Unit: 2611
Filed	: March 23, 2004	Confirmation No. 1914
For	: RECEPTION DATA SYNCHRONIZING APPARATUS AND METHOD, AND RECORDING MEDIUM WITH RECORDED RECEPTION DATA SYNCHRONIZING PROGRAM	

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APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Further to the Notice of Appeal dated August 11, 2008 of twice rejected claims including the rejections set forth in the outstanding Office Action, this Appeal Brief under 37 C.F.R. § 41.37 is responsive to the Final Office Action mailed April 10, 2008 and the Office Action dated May 15, 2007, in which the Examiner rejected claims 4, 5, 9, 10, 14, 15, 19, and 20. Inasmuch as the filing date of the Notice sets a two-month shortened statutory period for response, this Appeal Brief is timely filed concurrently with a Request for a one month Extension of Time.

If for any reason any extension of time and/or any fee is required to maintain the pendency of the application, including any extension of time and/or appeal fee, authorization is hereby provided to charge any required fee, including any fee for the Appeal Brief and any necessary extension of time fee to Deposit Account No. 19-0089.

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I. Real Party In Interest

The assignee, Advantest Corporation, is the real party in interest.

Application No. 10/806,256
Attorney Docket No. P32538
Appeal Brief Under 37 C.F.R. § 41.37

II. Related Appeals and Interferences

None.

III. Status of Claims

Claims 4, 5, 9, 10, 14, 15, 19, and 20 are pending in this application. Claims 1-3, 6-8, 11-13, and 16-18 have been cancelled.

Claims 4, 5, 9, 10, 14, 15, 19, and 20 stand twice rejected. Appellant appeals the final rejection of claims 4, 5, 9, 10, 14, 15, 19, and 20. In accordance with 37 C.F.R. § 41.37(c)(viii), the claims on appeal are included in the claim appendix.

IV. Status of Amendments

There are no amendments that have not been entered. The claims are in their form as amended in the Amendment filed March 16, 2007.

V. Summary of Claimed Subject Matter

The following description is made with respect to the independent claims and includes reference to particular parts of the specification. As such, the following is merely exemplary and non-limiting but does not constitute a surrender of other aspects of the present invention that are also enabled by the present specification and/or that are directed to equivalent structures or methods within the scope of the claims.

Independent claim 4 relates to a reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data (specification, page 4, lines 17 to 20), comprising: a phase difference recording means for recording a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data (specification, page 4, lines 20 to 24); a timing generating means for generating a timing for decision (specification, page 4, line 27, and page 5, lines 1-4); and a collation and synchronism decision means for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the timing for decision (specification, page 4, lines 24 to 26), wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision means collates the reception data with the expectation data (specification, page 4, line 27, and page 5, lines 1-7), and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference

recording means, when the collation and synchronism decision means gives a decision for inconsistency in phase (specification, page 5, lines 1-7).

Independent claim 5 relates to reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data (specification, page 5, lines 13-16), comprising: a phase difference recording means for recording a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data (specification, page 5, lines 16-20); a collation and synchronism decision means for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous synchronism pattern detecting timing (specification, page 5, lines 20-23); and a timing generating means operative, when the collation and synchronism decision means gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording means (specification, page 5, lines 23-27 and page 6, lines 1-2).

Independent claim 9 relates to reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data (specification, page 7, lines 13-16), comprising: a phase difference recording step for recording a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in

the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data (specification, page 7, lines 16-20); a timing generating step for generating a timing for decision (specification, page 7, lines 23-27); and a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with expectation data according to the timing for decision (specification, page 7, lines 20-27), wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision step collates the reception data with the expectation data (specification, page 7, lines 23-27), and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference recording step, when the collation and synchronism decision step gives a decision for inconsistency in phase (specification, page 7, lines 23-27).

Independent claim 10 relates to reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data (specification, page 8, lines 1-4), comprising: a phase difference recording step for recording a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data (specification, page 8, lines 4-8); a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous

synchronism pattern detecting timing (specification, page 8, lines 8-11); and a timing generating step operative, when the collation and synchronism decision step gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detection timing by the time difference recorded in the phase difference recording step (specification, page 8, lines 11-14).

Independent claim 14 relates to computer-readable medium embodying a computer program of instructions executable by a computer to perform a reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data (specification, page 9, line 23, to page 10, line 1), comprising: a phase difference recording step for recording a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data (specification, page 10, lines 1-5); a timing generating step for generating a timing for decision (specification, page 10, lines 7-11); and a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the timing for decision (specification, page 10, lines 5-7), wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision step collates the reception data with the expectation data (specification, page 10, lines 7-11), and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference

recording step, when the collation and synchronism decision step gives a decision for inconsistency in phase (specification, page 10, lines 7-11).

Independent claim 15 relates to a computer-readable medium embodying a computer program of instructions executable by a computer to perform a reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data (specification, page 10, lines 12-17), comprising: a phase difference recording step for recording a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as an previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data (specification, page 10, lines 17-21); a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous synchronism pattern detecting timing (specification, page 10, lines 21-23); and a timing generating step operative, when the collation and synchronism decision step gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step (specification, page 10, lines 23-27).

Independent claim 19 relates to reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data (specification, page 12, lines 7-10), comprising: a phase difference recording device that records a time difference between a

second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data (specification, page 12, lines 10-14); a timing generating device for generating a timing for decision (specification, page 12, lines 17-21); and a collation and synchronism decision device that collates the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the timing for decision (specification, page 12, lines 14-16), wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision device collates the reception data with the expectation data (specification, page 12, lines 17-21), and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference recording device, when the collation and synchronism decision device gives a decision for inconsistency in phase (specification, page 12, lines 17-21).

Independent claim 20 relates to reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as expected value of the reception data (specification, page 12, lines 22-25), comprising: a phase difference recording device that records a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data (specification, page 12, line 25, to page 13, line 3); a collation and

synchronism decision device for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous synchronism pattern detecting timing (specification, page 13, lines 3-6); and a timing generating device operative, when the collation and synchronism decision device gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording device (specification, page 13, lines 6-9).

VI. Grounds of Rejection to be Reviewed on Appeal

A) Whether claims 4, 5, 9, 10, 14, 15, 19, and 20 are unpatentable under 35 U.S.C. §103(a) over Masumoto et al. (U.S. Patent No. 5,809,094, hereinafter “MASUMOTO”) in view of Hiramatsu et al. (U.S. Patent No. 6,009,131, hereinafter “HIRAMATSU”).

VII. Arguments

A. Whether claims 4, 5, 9, 10, 14, 15, 19, and 20 are unpatentable under 35 U.S.C. §103(a) over MASUMOTO in view of HIRAMATSU.

1. Independent claim 4 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements recited in claim 4 (*see* page 4, middle paragraph, of the Office Action dated May 15, 2008). Specifically, the Examiner admits that MASUMOTO fails to teach or suggest “a phase difference recording means” for recording a phase time difference between the first and second synchronism pattern detecting timings (as recited in claim 4). However, the Examiner asserts that “only a small level of skill in the art would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording means for recording a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data.” The aforementioned deficiencies of the cited publications are not trivial or slight, contrary to the Examiner’s assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in

combination) fail to teach or suggest all of the elements recited in claim 4, and thus the cited art fails to render the claimed invention obvious.

In claim 4, the claimed "phase difference recording means" records a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data. The first and second synchronism pattern detecting timings, recited in claim 4, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver

(*see* HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the first and second synchronism pattern detecting timings, unlike the claimed “phase difference recording means” of claim 4. The first and second “synchronism pattern detecting timings” (in claim 4) differ significantly from the “frame timing” of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the Examiner (*see* page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone, MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 4, the “timing for decision” is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference (wherein the time difference is the difference between the first and second synchronism pattern detecting timings). MASUMOTO and HIRAMATSU (in any proper combination) do not teach or suggest recording a time difference between the first and second synchronism pattern detecting timings, let alone that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings. Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only “slight.” Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed “phase difference recording means” for recording a phase time difference between the first and second synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings (as recited in the claim). Appellant submits that the aforementioned distinctions between the claimed invention and the cited publications are not “slight,” and the modifications, suggested by the Examiner, would not be trivial.

For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 4, and respectfully request that the decision of the Examiner be reversed.

2. Independent claim 5 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner does not explicitly state the grounds for the rejection of independent claim 5 in the Office Actions dated April 10, 2008 and May 15, 2007. Rather, the Examiner merely states “[r]egarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above” (*see* page 6, second paragraph, of the Office Action dated April 10, 2008). Thus, the Examiner has not acknowledged the distinctions between claim 4 and independent claim 5, and Appellant may only glean the grounds of the rejection of claim 5, based on the Examiner’s arguments regarding claim 4.

In the outstanding Office Action, the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements of the claimed invention (*see* page 2, second paragraph, of the Office Action dated April 10, 2008 and page 4, middle paragraph, of the Office Action dated May 15, 2007). Specifically, the Examiner admits that MASUMOTO fails to teach or suggest “a phase difference recording means” for recording a phase time difference between the current and previous synchronism pattern detecting timings (as recited in claim 5). However, the Examiner asserts that “only a small level of skill in the art would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording means for recording a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data.” The aforementioned deficiencies of the cited

publications are not trivial or slight, contrary to the Examiner's assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in combination) fail to teach or suggest all of the elements recited in claim 5, and thus the cited art fails to render the claimed invention obvious.

In claim 5, the claimed "phase difference recording means" records a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data. The current and previous synchronism pattern detecting timings, recited in claim 5, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches

that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver (see HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, unlike the claimed “phase difference recording means” of claim 5. The current and previous “synchronism pattern detecting timings” (in claim 5) differ significantly from the “frame timing” of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the Examiner (see page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone, MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 5, the claimed “timing generating means” is operative, when the collation and synchronism decision means gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording means. MASUMOTO and HIRAMATSU (in any proper combination) do not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, let alone that the “timing generating means” operative for shifting the previous synchronism pattern detecting timing by the time difference

recorded in the phase difference recording means (as recited in claim 5). Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only “slight.” Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed “phase difference recording means” for recording a phase time difference between the current and previous synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses a “timing generating means” operative for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording means (as recited in the claim). Appellant submits that the aforementioned distinctions between the claimed invention and the cited publications are not “slight,” and the modifications, suggested by the Examiner, would not be trivial.

For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 5, and respectfully request that the decision of the Examiner be reversed.

3. Independent claim 9 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner does not explicitly state the grounds for the rejection of independent claim 9 in the Office Actions dated April 10, 2008 and May 15, 2007. Rather, the Examiner merely states “[r]egarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above” (*see* page 6, second paragraph, of the Office Action dated April 10, 2008). Thus, the Examiner has not acknowledged the distinctions between claim 4 and independent claim 9, and Appellant may only glean the grounds of the rejection of claim 9, based on the Examiner’s arguments regarding claim 4.

In the outstanding Office Action, the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements recited in claim 9 (*see* page 4, middle paragraph, of the Office Action dated May 15, 2008). Specifically, the Examiner admits that MASUMOTO fails to teach or suggest “a phase difference recording step” for recording a phase time difference between the first and second synchronism pattern detecting timings (as recited in claim 9). However, the Examiner asserts that “only a small level of skill in the art would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording step for recording a time difference between a

second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data.” The aforementioned deficiencies of the cited publications are not trivial or slight, contrary to the Examiner’s assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in combination) fail to teach or suggest all of the elements recited in claim 9, and thus the cited art fails to render the claimed invention obvious.

In claim 9, the claimed “phase difference recording step” records a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data. The first and second synchronism pattern detecting timings, recited in claim 9, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver (see HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the first and second synchronism pattern detecting timings, unlike the claimed "phase difference recording means" of claim 9. The first and second "synchronism pattern detecting timings" (in claim 9) differ significantly from the "frame timing" of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the Examiner (see page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone, MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 9, the "timing for decision" is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference (wherein the time difference is the difference between the first and second synchronism pattern detecting timings). MASUMOTO and HIRAMATSU (in any proper combination) do not teach or suggest recording

a time difference between the first and second synchronism pattern detecting timings, let alone that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings. Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only “slight.” Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed “phase difference recording step” for recording a phase time difference between the first and second synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings (as recited in claim 9). Appellant submits that the aforementioned distinctions between the claimed invention and the cited publications are not “slight,” and the modifications, suggested by the Examiner, would not be trivial.

For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 9, and respectfully request that the decision of the Examiner be reversed.

4. Independent claim 10 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner does not explicitly state the grounds for the rejection of independent claim 10 in the Office Actions dated April 10, 2008 and May 15, 2007. Rather, the Examiner merely states “[r]egarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above” (see page 6, second paragraph, of the Office Action dated April 10, 2008). Thus, the Examiner has not acknowledged the distinctions between claim 4 and independent claim 10, and Appellant may only glean the grounds of the rejection of claim 10, based on the Examiner’s arguments regarding claim 4.

In the outstanding Office Action, the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements of the claimed invention (see page 2, second paragraph, of the Office Action dated April 10, 2008 and page 4, middle paragraph, of the Office Action dated May 15, 2007). Specifically, the Examiner admits that MASUMOTO fails to teach or suggest “a phase difference recording means” for recording a phase time difference between the current and previous synchronism pattern detecting timings (as recited in claim 10). However, the Examiner asserts that “only a small level of skill in the art would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording step for recording a time difference between a

current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data.” The aforementioned deficiencies of the cited publications are not trivial or slight, contrary to the Examiner’s assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in combination) fail to teach or suggest all of the elements recited in claim 10, and thus the cited art fails to render the claimed invention obvious.

In claim 10, the claimed “phase difference recording step” records a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data. The current and previous synchronism pattern detecting timings, recited in claim 10, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver (see HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, unlike the claimed "phase difference recording step" of claim 10. The current and previous "synchronism pattern detecting timings" (in claim 10) differ significantly from the "frame timing" of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the Examiner (see page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone, MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 10, the claimed "timing generating step" is operative, when the collation and synchronism decision means gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step. MASUMOTO and HIRAMATSU (in any proper combination)

do not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, let alone that the “timing generating step” operative for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step (as recited in the claim 10). Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only “slight.” Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed “phase difference recording step” for recording a phase time difference between the current and previous synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses a “timing generating step” operative for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step (as recited in claim 10). Appellant submits that the aforementioned distinctions between the claimed invention and the cited publications are not “slight,” and the modifications, suggested by the Examiner, would not be trivial.

For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 10, and respectfully request that the decision of the Examiner be reversed.

5. Independent claim 14 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner does not explicitly state the grounds for the rejection of independent claim 14 in the Office Actions dated April 10, 2008 and May 15, 2007. Rather, the Examiner merely states “[r]egarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above” (*see* page 6, second paragraph, of the Office Action dated April 10, 2008). Thus, the Examiner has not acknowledged the distinctions between claim 4 and independent claim 14, and Appellant may only glean the grounds of the rejection of claim 14, based on the Examiner’s arguments regarding claim 4.

In the outstanding Office Action, the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements recited in claim 14 (*see* page 4, middle paragraph, of the Office Action dated May 15, 2008). Specifically, the Examiner admits that MASUMOTO fails to teach or suggest “a phase difference recording step” for recording a phase time difference between the first and second synchronism pattern detecting timings (as recited in claim 14). However, the Examiner asserts that “only a small level of skill in the art would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording step for recording a time difference between a

second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data.” The aforementioned deficiencies of the cited publications are not trivial or slight, contrary to the Examiner’s assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in combination) fail to teach or suggest all of the elements recited in claim 14, and thus the cited art fails to render the claimed invention obvious.

In claim 14, the claimed “phase difference recording step” records a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data. The first and second synchronism pattern detecting timings, recited in claim 14, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver (see HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the first and second synchronism pattern detecting timings, unlike the claimed "phase difference recording means" of claim 14. The first and second "synchronism pattern detecting timings" (in claim 14) differ significantly from the "frame timing" of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the Examiner (see page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone, MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 14, the "timing for decision" is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference (wherein the time difference is the difference between the first and second synchronism pattern detecting timings). MASUMOTO and HIRAMATSU (in any proper combination) do not teach or suggest recording

a time difference between the first and second synchronism pattern detecting timings, let alone that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings. Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only "slight." Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed "phase difference recording step" for recording a phase time difference between the first and second synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings (as recited in the claim). Appellant submits that the aforementioned distinctions between the claimed invention and the cited publications are not "slight," and the modifications, suggested by the Examiner, would not be trivial.

For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 14, and respectfully request that the decision of the Examiner be reversed.

6. Independent claim 15 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner does not explicitly state the grounds for the rejection of independent claim 15 in the Office Actions dated April 10, 2008 and May 15, 2007. Rather, the Examiner merely states “[r]egarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above” (*see* page 6, second paragraph, of the Office Action dated April 10, 2008). Thus, the Examiner has not acknowledged the distinctions between claim 4 and independent claim 15, and Appellant may only glean the grounds of the rejection of claim 15, based on the Examiner’s arguments regarding claim 4.

In the outstanding Office Action, the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements of the claimed invention (*see* page 2, second paragraph, of the Office Action dated April 10, 2008 and page 4, middle paragraph, of the Office Action dated May 15, 2007). Specifically, the Examiner admits that MASUMOTO fails to teach or suggest “a phase difference recording means” for recording a phase time difference between the current and previous synchronism pattern detecting timings (as recited in claim 15). However, the Examiner asserts that “only a small level of skill in the art would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording step for recording a time difference between a

current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data.” The aforementioned deficiencies of the cited publications are not trivial or slight, contrary to the Examiner’s assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in combination) fail to teach or suggest all of the elements recited in claim 15, and thus the cited art fails to render the claimed invention obvious.

In claim 15, the claimed “phase difference recording step” records a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data. The current and previous synchronism pattern detecting timings, recited in claim 15, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver (*see* HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, unlike the claimed "phase difference recording step" of claim 15. The current and previous "synchronism pattern detecting timings" (in claim 15) differ significantly from the "frame timing" of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the Examiner (*see* page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone, MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 15, the claimed "timing generating step" is operative, when the collation and synchronism decision means gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step. MASUMOTO and HIRAMATSU (in any proper combination)

do not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, let alone that the “timing generating step” operative for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step (as recited in the claim 15). Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only “slight.” Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed “phase difference recording step” for recording a phase time difference between the current and previous synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses a “timing generating step” operative for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step (as recited in claim 15). Appellant submits that the aforementioned distinctions between the claimed invention and the cited publications are not “slight,” and the modifications, suggested by the Examiner, would not be trivial.

For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 15, and respectfully request that the decision of the Examiner be reversed.

7. Independent claim 19 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner does not explicitly state the grounds for the rejection of independent claim 19 in the Office Actions dated April 10, 2008 and May 15, 2007. Rather, the Examiner merely states “[r]egarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above” (*see* page 6, second paragraph, of the Office Action dated April 10, 2008). Thus, the Examiner has not acknowledged the distinctions between claim 4 and independent claim 19, and Appellant may only glean the grounds of the rejection of claim 19, based on the Examiner’s arguments regarding claim 4.

In the outstanding Office Action, the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements recited in claim 19 (*see* page 4, middle paragraph, of the Office Action dated May 15, 2008). Specifically, the Examiner admits that MASUMOTO fails to teach or suggest “a phase difference recording device” that records a phase time difference between the first and second synchronism pattern detecting timings (as recited in claim 19). However, the Examiner asserts that “only a small level of skill in the art

would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording device that records a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data.” The aforementioned deficiencies of the cited publications are not trivial or slight, contrary to the Examiner’s assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in combination) fail to teach or suggest all of the elements recited in claim 19, and thus the cited art fails to render the claimed invention obvious.

In claim 19, the claimed “phase difference recording device” records a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data. The first and second synchronism pattern detecting timings, recited in claim 19, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the

reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver (see HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the first and second synchronism pattern detecting timings, unlike the claimed "phase difference recording device" of claim 19. The first and second "synchronism pattern detecting timings" (in claim 19) differ significantly from the "frame timing" of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the Examiner (see page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone,

MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 19, the “timing for decision” is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference (wherein the time difference is the difference between the first and second synchronism pattern detecting timings). MASUMOTO and HIRAMATSU (in any proper combination) do not teach or suggest recording a time difference between the first and second synchronism pattern detecting timings, let alone that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings. Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only “slight.” Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed “phase difference recording device” that records a phase time difference between the first and second synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses that the timing decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference between the first and second synchronism pattern detecting timings (as recited in the claim). Appellant submits that the aforementioned

distinctions between the claimed invention and the cited publications are not “slight,” and the modifications, suggested by the Examiner, would not be trivial.

For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 19, and respectfully request that the decision of the Examiner be reversed.

8. Independent claim 20 is not disclosed, suggested, or rendered obvious by MASUMOTO in view of HIRAMATSU.

Appellant submits that the combination of MASUMOTO and HIRAMATSU does not disclose or render obvious all of the elements of the claims.

Initially, Appellant notes that the Examiner does not explicitly state the grounds for the rejection of independent claim 20 in the Office Actions dated April 10, 2008 and May 15, 2007. Rather, the Examiner merely states “[r]egarding claims 5, 9, 10, 14, 15, 19, and 20, the limitations of the claims are disclosed by Matsumoto in view of Hiramatsu as applied in claim 4 above” (*see* page 6, second paragraph, of the Office Action dated April 10, 2008). Thus, the Examiner has not acknowledged the distinctions between claim 4 and independent claim 20, and Appellant may only glean the grounds of the rejection of claim 20, based on the Examiner’s arguments regarding claim 4.

In the outstanding Office Action, the Examiner explicitly acknowledges that MASUMOTO does not teach all of the elements of the claimed invention (*see* page 2, second paragraph, of the Office Action dated April 10, 2008 and page 4, middle paragraph, of the Office Action dated May 15, 2007). Specifically, the Examiner admits that MASUMOTO fails to teach

or suggest “a phase difference recording device” that records a phase time difference between the current and previous synchronism pattern detecting timings (as recited in claim 20). However, the Examiner asserts that “only a small level of skill in the art would be required to modify...MASUMOTO as suggested by HIRAMATSU” to arrive at the claimed invention.

Appellant respectfully disagrees. MASUMOTO and HIRAMATSU both fail to disclose, *inter alia*, the claimed “phase difference recording device that records a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data.” The aforementioned deficiencies of the cited publications are not trivial or slight, contrary to the Examiner’s assertions. For the reasons provided below, Appellant submits that the teachings of MASUMOTO and HIRAMATSU (singularly or even in combination) fail to teach or suggest all of the elements recited in claim 20, and thus the cited art fails to render the claimed invention obvious.

In claim 20, the claimed “phase difference recording device” records a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data. The current and previous synchronism pattern detecting timings, recited in claim 20, differ significantly from the frame timing of the transmitter and the receiver disclosed in HIRAMATSU.

In the claimed invention, in order to collate reception data and expectation data, the reception data and the expectation data must be synchronized. In order to synchronize the reception data and expectation data, a synchronism pattern contained in the reception data must be detected. Once synchronism patterns in the reception data are detected, synchronism between the reception data and the expectation data may be obtained, based on the detected timing of the synchronism patterns (or synchronism pattern detecting timing) and the time difference between these synchronism pattern detecting timings.

In contrast, the "frame timing", disclosed in HIRAMATSU, is merely related to the timing of data frames of a receiver and the timing of data frames of a transmitter, and calculating the average value of the difference between these timings. Specifically, HIRAMATSU teaches that the difference circuit 111 and the average value calculation circuit 113 determines the average value of the differences between the frame timings of the transmitter and the receiver (see HIRAMATSU, col. 3, lines 34-47, and page 4, lines 20-22, of the Office Action). Yet, HIRAMATSU does not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, unlike the claimed "phase difference recording device" of claim 20. The current and previous "synchronism pattern detecting timings" (in claim 20) differ significantly from the "frame timing" of the transmitter and the receiver of HIRAMATSU. Although the Examiner attempts to argue that the frame timing difference is equivalent or analogous to the claimed first and second synchronism pattern detecting timings, there is no evidence to support the conclusion that one skilled in the art would find the disparate features of HIRAMATSU equivalent to the features of the claimed invention. Furthermore, MASUMOTO also fails to teach this element of the claimed invention, as admitted by the

Examiner (*see* page 4, second paragraph, of the Office Action dated May 15, 2007). For this reason alone, MASUMOTO and HIRAMATSU (in any proper combination) fail to disclose or render obvious all of the elements of the claimed invention.

Furthermore, in claim 20, the claimed “timing generating device” is operative, when the collation and synchronism decision means gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording device. MASUMOTO and HIRAMATSU (in any proper combination) do not teach or suggest recording a time difference between the current and previous synchronism pattern detecting timings, let alone that the “timing generating device” operative for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording device (as recited in the claim 20). Accordingly, MASUMOTO and HIRAMATSU fail to teach or suggest another element of the claimed invention.

Although the Examiner acknowledges the deficiencies of MASUMOTO and HIRAMATSU, the Examiner merely concludes that the aforementioned deficiencies of MASUMOTO and HIRAMATSU are only “slight.” Appellant submits that there is insufficient guidance or reasons that would lead one skilled in the art to modify the MASUMOTO and HIRAMATSU in the manner suggested by the Examiner. Furthermore, as explained above, neither MASUMOTO nor HIRAMATSU, disclose, *inter alia*, the claimed “phase difference recording device” that records a phase time difference between the current and previous synchronism pattern detecting timings, and neither MASUMOTO nor HIRAMATSU discloses a “timing generating device” operative for shifting the previous synchronism pattern

detecting timing by the time difference recorded in the phase difference recording device (as recited in claim 20). Appellant submits that the aforementioned distinctions between the claimed invention and the cited publications are not "slight," and the modifications, suggested by the Examiner, would not be trivial.

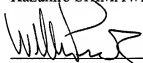
For at least these reasons, Appellant submits that MASUMOTO and HIRAMATSU (either singularly or in combination) fail to disclose or render obvious all of the elements of claim 20, and respectfully request that the decision of the Examiner be reversed.

CONCLUSION

Each of claims 4, 5, 9, 10, 14, 15, 19, and 20 is patentable for the reasons set forth herein. Specifically, the applied art of record does not teach or suggest the combination of features recited in Appellant's claims, and is not combinable in the manner proposed by the Examiner, and even if it were considered to be properly combined, fails to disclose or suggest the unique combination of features recited in Appellant's claims 4, 5, 9, 10, 14, 15, 19, and 20. Appellant respectfully requests that the Board reverse the decision of the Examiner to reject claims 4, 5, 9, 10, 14, 15, 19, and 20.

Thus, Appellant respectfully submits that each and every pending claim of the present application meets the requirements for patentability, and that the present application and each pending claim are allowable over the prior art of record.

Respectfully submitted,
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VIII. Claims Appendix

4. A reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data, comprising:

a phase difference recording means for recording a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data;

a timing generating means for generating a timing for decision; and

a collation and synchronism decision means for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the timing for decision,

wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision means collates the reception data with the expectation data,

and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference recording means, when the collation and synchronism decision means gives a decision for inconsistency in phase.

5. A reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data, comprising:

a phase difference recording means for recording a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data;

a collation and synchronism decision means for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous synchronism pattern detecting timing; and

a timing generating means operative, when the collation and synchronism decision means gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording means.

9. A reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data, comprising:

a phase difference recording step for recording a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data;

a timing generating step for generating a timing for decision; and

a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with expectation data according to the timing for decision,

wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision step collates the reception data with the expectation data,

and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference recording step, when the collation and synchronism decision step gives a decision for inconsistency in phase.

10. A reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data, comprising:

a phase difference recording step for recording a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data;

a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous synchronism pattern detecting timing; and

a timing generating step operative, when the collation and synchronism decision step gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detection timing by the time difference recorded in the phase difference recording step.

14. A computer-readable medium embodying a computer program of instructions executable by a computer to perform a reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data, comprising:

a phase difference recording step for recording a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data;

a timing generating step for generating a timing for decision; and

a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the timing for decision,

wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision step collates the reception data with the expectation data,

and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference recording step, when the collation and synchronism decision step gives a decision for inconsistency in phase.

15. A computer-readable medium embodying a computer program of instructions executable by a computer to perform a reception data synchronizing method for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data, comprising:

a phase difference recording step for recording a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as an previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data;

a collation and synchronism decision step for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous synchronism pattern detecting timing; and

a timing generating step operative, when the collation and synchronism decision step gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording step.

19. A reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as an expected value of the reception data, comprising:

a phase difference recording device that records a time difference between a second synchronism pattern detecting timing at which a second of the plurality of synchronism patterns

is detected in the reception data and a first synchronism pattern detecting timing, as an initial one at which a first of the plurality of synchronism patterns is initially detected in the reception data;

a timing generating device for generating a timing for decision; and

a collation and synchronism decision device that collates the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the timing for decision,

wherein the timing for decision is the first synchronism pattern detecting timing before the collation and synchronism decision device collates the reception data with the expectation data,

and wherein the timing for decision is a timing obtained by shifting the first synchronism pattern detecting timing by the time difference recorded in the phase difference recording device, when the collation and synchronism decision device gives a decision for inconsistency in phase.

20. A reception data synchronizing apparatus for a synchronization to be obtained between reception data having a plurality of synchronism patterns and expectation data as expected value of the reception data, comprising:

a phase difference recording device that records a time difference between a current synchronism pattern detecting timing at which a second of the plurality of synchronism patterns is detected in the reception data and a previous synchronism pattern detecting timing, as a previous one at which a first of the plurality of synchronism patterns is detected in a previous time in the reception data;

a collation and synchronism decision device for collating the reception data with the expectation data to decide whether or not the reception data is consistent in phase with the expectation data according to the previous synchronism pattern detecting timing; and

a timing generating device operative, when the collation and synchronism decision device gives a decision for inconsistency in phase, for shifting the previous synchronism pattern detecting timing by the time difference recorded in the phase difference recording device.

IX. Evidence Appendix

None.

Application No. 10/806,256
Attorney Docket No. P32538
Appeal Brief Under 37 C.F.R. § 41.37

X. Related Proceedings Appendix

None.